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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,241	06/27/2003	Elias Jonsson	P17507-US2	8596
27045	7590	11/24/2006	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			BURD, KEVIN MICHAEL	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/608,241

Applicant(s)

JONSSON, ELIAS

Examiner

Kevin M. Burd

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/27/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-34 do not disclose a tangible result. Providing a set of delays to a RAKE receiver is not a tangible result. Claims 24-34 claim a computer readable storage medium. The specification discloses the computer readable storage medium can be a signal on page 5, lines 13-25. A signal is non-statutory subject matter since it is energy not matter. In addition, the specification discloses the computer readable storage medium can be paper. Instructions written on a sheet of paper is non-statutory since the sheet of paper is not a computer component.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 2001/0028677) in view of Newson et al (US 6,320,898).

Regarding claims 1, 9, 11-13, 20, 22-24, 31 and 33-35, Wang discloses a method, system, computer product and electronic device for selecting delays for a RAKE receiver (title). Multi-path signals are received corresponding to a set of delays as shown in figure 6. Each of the signals has a corresponding signal-to-noise ratio (SNR). Time offset versions of the composite signal are generated at respective time offsets that are selected based on the time offsets between the received multi-path versions of the composite signal (paragraph 0036). A subset of these time offsets are selected for combining and a weighted combination of the correlations corresponding to the selected time offsets are used to estimate information encoded in the transmitted signal (paragraph 0036). The act of selecting the subset of time offsets comprises determining performance metrics and they are selected based on the improvement in the values of the performance metrics (paragraph 0038). The performance metric is SNR (paragraph 0038). Filtering of the received signal is done in the receiver (paragraph 0044). Once a subset is selected, the corresponding delays are used in the correlation unit (paragraphs 0047 and 0052). The subset is weighted in weighting combiner 415. The weighting combiner can eliminate a signal by using a weighting factor of zero. These components are used in the RAKE receiver shown in figure 6. Wang does not disclose averaging the SNR values. Newson discloses the SNR values determined from the correlation values are averaged (column 3, lines 58-65). Averaging removes or lessens the impact of one time events that are not typically received and adversely effect the normal processing of signals. For this reason, it would have been obvious for one of

ordinary skill in the art at the time of the invention to use the averaging of SNR values taught by Newson in the system and method of Wang.

Regarding claims 2, 3, 14 and 25, the steps will be carried out in the receiver of a mobile terminal.

Regarding claims 4, 15 and 26, as stated above the subset is chosen according to a performance metric such as SNR.

Regarding claims 5, 6, 10, 16, 17, 21, 27, 28 and 32, the delays are selected according to performance metrics. Delays within any value can be selected.

Regarding claims 7, 8, 18, 19, 29 and 30, as stated above, the subset is weighted in the weighting combiner 415.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin M. Burd  
11/16/2006

  
**KEVIN BURD**  
**PRIMARY EXAMINER**